

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT		
Air Quality Analysis Checklist		Appendix C		
<p><i>Note: Appendix C must be completed and included with the application for a Prevention of Significant Deterioration (PSD) Permit to Construct. All elements of the checklist should be addressed. See the Application Instructions for further information.</i></p>				
SUBMIT <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Yes</td> <td style="width: 50%; text-align: center;">N/A</td> </tr> </table>	Yes	N/A	<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> </div> <div style="border: 1px solid black; height: 80px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> </div> <div style="border: 1px solid black; height: 120px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> </div> <div style="border: 1px solid black; height: 120px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> </div> <div style="border: 1px solid black; height: 120px; margin-bottom: 5px;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> <div style="width: 10%; text-align: center;"><input type="checkbox"/></div> </div>	
Yes	N/A			
	<p>I. Applicant and Consultant Information</p> <p>a. Name, address, and location of facility</p> <p>b. Facility Air Permit Number</p> <p>c. Facility contact name and phone number</p> <p>d. Modeling contact name, phone number, and e-mail address</p>			
	<p>II. Description of Facility Operations</p> <p><i>A brief description of each process to be carried out in the facility and the function of the equipment used in the process. The descriptions must be complete and particular attention must be given to explaining all stages in the process where the discharge of any materials might contribute in any way to air pollution. Control procedures must be described in sufficient detail to show the extent of control of air contaminants anticipated in the design, specifying the expected efficiencies of the capture systems and the control devices. All obtainable data must be supplied concerning the nature, volumes, particle size, weights, chemical composition and concentrations of all types of air contaminants.</i></p>			
	<p>III. Project Description</p> <p><i>A written description of the proposed project to include, but not limited to, a description of the project purpose and scope, general geographical location, types of emission sources and scenarios, pollutants evaluated, and the applicable averaging periods.</i></p> <p><i>If applicable, a description of Alternate Operating Scenarios to be modeled.</i></p>			
	<p>IV. Modeling Protocol</p> <p><i>Prior to submitting the PSD application and modeling analysis, the applicant is required to submit a modeling protocol to MDEQ for review. Upon review, the applicant will receive notification of acceptance of the modeling approach as well as guidance on any outstanding issues. Please be advised, an approved modeling protocol does not necessarily limit the extent of the modeling that will be required to demonstrate compliance with the applicable standards.</i></p> <p style="text-align: center;"> Submittal Date: _____ Approval Date: _____ </p>			
	<p>V. Model Selection</p> <p><i>The Preferred/Recommended dispersion models are listed in 40 CFR 51Appendix W and are required to be used. All air quality analyses should be performed using the most currently available versions of EPA guideline models. Access to all current models is possible through the EPA Web Page http://www.epa.gov/scram/.</i></p>			

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<input type="checkbox"/>	<input type="checkbox"/>	<p>V. Model Selection (continued)</p> <p>a. Discuss the general modeling approach (e.g., project impacts vs. cumulative impacts) and highlight any unique items.</p> <p>b. Identify the dispersion model(s), including the version number that was used in the modeling analysis.</p> <p>c. Discuss modeling options used and why they were considered appropriate for the proposed project.</p> <p>d. List the time-averaged pollutants modeled.</p> <p>e. Discuss any other modeling parameters or considerations used in the modeling analysis.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>VI. Meteorological Data</p> <p><i>The most recent available five years of representative National Weather Service meteorological data is required.</i></p> <p><i>A minimum of one year of data gathered on-site may be used, provided that the data meets quality-assurance requirements. In this case, the hourly meteorological data recorded on site must be submitted for approval. This submittal must also include documentation for quality-assurance procedures, substitution for missing data, determination of stability categories, and the basis of calm wind readings</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>VII. Receptor and Terrain Discussion</p> <p><i>Receptor grids may be polar, cartesian, or discrete with receptors beginning at the facility fenceline and extending sufficiently outward to identify the maximum impacts from both the onsite and offsite emission sources for each pollutant and pollutant averaging period evaluate. Receptor resolution may vary, however, receptors near the facility fenceline and in the area of controlling concentrations must be no greater than 100-meters. Controlling concentrations are those receptors found to be within 75% of the maximum predicted impacts.</i></p> <p><i>The most recent version of AERMAP should be used to import terrain and source elevations.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>VIII. Emission Source Information</p> <p><i>Tables are required for identifying all baseline and increment sources used in the modeling, including all applicable stack parameters (UTM coordinate locations, emission rate, stack height, exit velocity, exit temperature and inner diameter), area source parameters (emission rate, southwest coordinates, height, width), and volume source parameters (emission rate, center coordinates, height, horizontal and vertical dimensions).</i></p> <p>a. Identify all emission units included in the modeling analysis. Provide a listing of the identifiers assigned to these sources for modeling purposes.</p> <p>b. Identify maximum potential short-term emission rates for all modeled pollutants in lb/hr and the associated g/sec emission rate. The maximum short-term emission rates for each source should be used to demonstrate compliance with all short-term averaging standards and guidelines.</p> <p>c. Identify maximum potential long-term emission rates for all modeled pollutants in ton/yr and the associated g/sec emission rate.</p> <p>d. Identify any operational limitation assumed for an emission unit.</p>

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Yes	N/A					
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Yes	N/A					
<input type="checkbox"/>	<input type="checkbox"/>					